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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,159	01/11/2002	Muneyuki Suzuki	04269.0316	5986

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EXAMINER	
IQBAL, KHAWAR	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,159	SUZUKI ET AL.	
	Examiner	Art Unit	
	Khawar Iqbal	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15,20-23 and 26-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15,20-23 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,4-14,20-23,26-28 are rejected under 35 U.S.C. 102(b) as being unpatentable by Yamane (09-233564).

3. Regarding claim 1 Yamane teaches a radio communication system comprising a network structure which arranges a plurality of node devices each having a radio unit and performs radio communications of the respective node devices with their neighboring node devices to realize the communications among the respective node devices, and a management device for managing the network via at least one of the node devices, wherein (figs. 1-3):

the node device comprises: a GPS device for inputting GPS information which is sent from a GPS satellite and received by a GPS antenna (para. 0012-0014);

transmission means for sending position information generated by the GPS device to the management device (para. 0012-0014); and

control means for receiving a control signal generated by the management device according to the position information sent from the transmission means and controlling respective sections of the radio unit according to the control signal; and the management device comprises (para. 0012-0014):

control signal generation means which receives the position information from the node device and generates the control signal for controlling respective sections of the node device that sent the position information according to the position information (para. 0012-0014); and

control signal transmission means which sends the generated control signal to a pertinent node device (para. 0012-00124,0030-0039).

Regarding claim 4 Yamane teaches wherein the GPS antenna is installed indoors and the GPS information received by the PGS antenna is directly input to the GPS device (para. 0012-0014).

Regarding claim 5 Yamane teaches wherein the node device comprises clock generating means which receives a synchronization signal generated by the GPS device from time information which is contained in the GPS information and generates an internal operation clock of the own device according to the synchronization signal (para. 0012-0014).

Regarding claim 6 Yamane teaches, wherein: the node device comprises means for generating a self clock and means for extracting a clock from a radio communication channel in an associated section to take it as a line clock; and the clock generation means comprises means for selecting one of the internal operation clock generated from the time information, the self clock and the line clock (para. 0012-0014).

Regarding claim 7 Yamane teaches wherein: the control signal generation means comprises: arithmetic means for calculating a direction of the antenna according to the position information received from each node device so that centers of antennas of the

respective radio units of both of the mutually neighboring node devices are faced to each other; and antenna direction adjusting control signal generation means for generating an antenna direction adjusting control signal for adjusting the antennas of the respective radio units of both of the node devices to direct them in the calculated antenna direction; and the control means comprises: antenna direction adjustment means for adjusting the direction of the antenna of the radio unit of the own node device according to the antenna direction adjusting control signal received from the management device (para. 0012-00124,0030-0039).

Regarding claim 8 Yamane teaches wherein: the radio unit has azimuthal direction rotating means and elevational direction rotating means which respectively rotate the antenna in an azimuthal direction and an elevational direction; and the antenna direction adjustment means comprises means for driving the azimuthal direction rotating means and the elevational direction rotating means to respectively rotate the antenna in the azimuthal direction and the elevational direction according to the antenna direction adjusting control signal (para. 0012-00124,0030-0039).

Regarding claim 9 Yamane teaches wherein: the control signal generation means comprises: radio level arithmetic means which calculates an optimum radio level of each radio unit of neighboring node devices corresponding to a distance between the neighboring node devices according to the position information received from the respective node devices; and radio level adjusting control signal generation means which generates a radio level adjusting control signal for adjusting radio levels of the radio units of the neighboring node devices to the calculated radio levels respectively;

and the control means comprises radio level adjustment means which adjusts the radio level of the radio unit of the own node device according to the radio level adjusting control signal received from the management device (para. 0012-00124,0030-0039).

Regarding claim 10 Yamane teaches wherein the radio level is at least either one of the transmission level and the reception level.

Regarding claim 11 Yamane teaches wherein the management device comprises: a map database which stores electronic map data on an installation area of the node devices; and display control means which displays node icons of the pertinent node devices at the pertinent positions on the electronic map according to the position information received from the node devices (para. 0012-0014, 0019-0024).

Regarding claim 12 Yamane teaches wherein: the node device comprises means for sending node identification information about the own device to the management device; and the management device comprises means for displaying the node identification information together with node icons corresponding to the node devices according to the node identification information received from the node devices (para. 0012-0014, 0019-0024).

Regarding claim 13 Yamane teaches wherein: the node device comprises: connection recognition means which recognizes a connected relation between the own node and an adjacent node device; and connected state information transmission means which sends connected state information showing the recognized connected relation to the management device; and the management device comprises: connection management means which manages normal connected relation information between node devices

being managed; judging means which compares the connected state information received from the respective node devices and the connected state information managed by the connection management means and judges connected states between the respective node devices; and connected state drawing means which draws lines indicating the connected states of the respective node devices between node icons corresponding to the respective node devices according to the judged result obtained by the judging means (para. 0012-00124,0030-0039).

Regarding claim 14 Yamane teaches further comprising means for alarming a mis-connected state when the judging means judges that the respective node devices are in the mis-connected state (para. 0012-0014, 0019-0024).

Regarding claim 20 Yamane teaches radio communication system comprising a network structure which arranges a plurality of node devices each having a radio unit and performs radio communications of the respective node devices with their neighboring node devices to realize the communications among the respective node devices, and a management device for managing the network via at least one of the node devices, wherein: the node device comprises (figs. 1-3): a GPS device which inputs GPS information received from a GPS satellite (para. 0012-0014, 0019-0024); transmission means which sends position information generated by the GPS device to the management device (para. 0012-0014, 0019-0024); and antenna direction adjusting means which adjusts a direction of the antenna of the radio unit of the own node device according to antenna direction adjusting control signal generated by the management device according to the position information; and the management device comprises

(para. 0012-0014, 0019-0024): arithmetic means which calculates directions of the antennas according to the position information received from the respective node devices so that centers of the antennas of the respective radio units of both of the mutually neighboring node devices are faced to each other (para. 0012-00124,0030-0039); antenna direction adjusting control signal generation means which generates the antenna direction adjusting control signal for adjusting the antennas of the respective radio units of both of the node devices to face them in the calculated antenna direction (para. 0012-0014, 0019-0024); and control signal transmission means which sends the generated antenna direction adjusting control signal to the pertinent node devices (para. 0012-00124,0030-0039).

Regarding claim 21 Yamane teaches wherein: the radio unit has azimuthal direction rotating means and elevational direction rotating means which respectively rotate the antenna in an azimuthal direction and an elevational direction; and the antenna direction adjustment means comprises means for driving the azimuthal direction rotating means and the elevational direction rotating means to respectively rotate the antenna in the azimuthal direction and the elevational direction according to the antenna direction adjusting control signal (para. 0012-00124,0030-0039).

Regarding claim 22 Yamane teaches a radio communication system comprising a network structure which arranges a plurality of node devices each having a radio unit and performs radio communications of the respective node devices with their neighboring node devices to realize the communications among the respective node devices, and a management device for managing the network via at least one of the

node devices, wherein: the node device comprises (figs. 1-3): a GPS device which inputs GPS information received from a GPS satellite (para. 0012-0014, 0019-0024); transmission means which sends position information generated by the GPS device to the management device (para. 0012-0014, 0019-0024); and radio level adjusting means which adjusts a radio level of the radio unit of the own node device according to a radio level adjusting control signal generated by the management device according to the position information (para. 0012-0014, 0019-0024); and the management means comprises (para. 0012-00124,0030-0039): radio level arithmetic means which calculates an optimum radio level of the respective radio units of both of the node devices corresponding to a distance between both of the node devices according to the position information received from the respective node devices (para. 0012-0014, 0019-0024); radio level adjusting control signal generation means which generates the radio level adjusting control signal for adjusting the radio levels of the radio units of both of the node devices to the calculated radio level respectively; and control signal transmission means which sends the generated antenna direction adjusting control signal to the pertinent node devices (para. 0012-00124,0030-0039).

Regarding claim 23 Yamane teaches wherein the radio level is at least either one of the transmission level and the reception level (para. 0012-0014, 0019-0024).

Regarding claim 26 Yamane teaches a radio communication system comprising a network structure which arranges a plurality of node devices each having a radio unit and performs radio communications of the respective node devices with their neighboring node devices to realize the communications among the respective node

devices, and a management device for managing the network via at least one of the node devices, wherein (figs. 1-3): the node device comprises: a GPS device which inputs GPS information received from a GPS satellite; connection recognition means which recognizes a connected relation between the own node and the adjacent node devices (para. 0012-00124,0030-0039); transmission means which transmits position information generated by the GPS device and connected state information showing a connected relation recognized by the connection recognition means to the management device; the management device comprises (para. 0012-00124,0030-0039): a map database which stores electronic map data about an installation area of the node devices (para. 0012-00124); display control means which displays node icons of the pertinent node devices at the pertinent positions on the electronic map according to the position information received from the node devices (para. 0012-00124,0030-0039); connection management means which manages normal connected relation information between the node devices being managed (para. 0012-00124,0030-0039); judging means which compares the connected state information received from the respective node devices and the connected state information managed by the connection management means and judges connected states between the respective node devices (para. 0012-00124); and connected state drawing means which draws lines indicating the connected states of the respective node devices between the node icons corresponding to the respective node devices according to the judged result obtained by the judgment means (para. 0012-00124,0030-0039).

Regarding claim 27 Yamane teaches wherein: the node device further comprises

means for transmitting node identification information about the own device to the management device; and the management device comprises means for displaying the node identification information together with the node icons corresponding to the pertinent node devices according to the node identification information received from the node devices (para. 0012-00124,0030-0039).

Regarding claim 28 Yamane teaches further comprising means for alarming a mis-connected state when the judging means judges that the respective node devices are in the mis-connected state (para. 0012-00124,0030-0039).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made:

5. Claims 2 and 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane (09-233564) and further in view of Takaoka et al (6477475).

Regarding claims 2,3 Yamane teaches A mobile station 1 reports its own position through a GPS antenna 2 and a position information measuring instrument 3 to an antenna controller 11. The antenna controller 11 transmits this position information through a transmitter/receiver 9 and full directional antennas 10 and 27 to an antenna controller 25 at a base station 21. The antenna controller 25 at the base station 21 turns an antenna 22 for video transmission toward the mobile station

1 by driving motors 23 and 24 based on this position information and transmits a non-modulated signal. The mobile station 1 receives this non- modulated signal through an antenna 4 for video transmission. The antenna controller 11 at the mobile station 1 turns the antenna 4 for video transmission toward the base station 21 by driving motors 5 and 6 so that the reception level of this signal can be maximum (para. 0012-00124,0030-0039). Yamane does not specifically teach connected through a coaxial cable.

In an analogous art, Takaoka et al teaches connected through a coaxial cable (col. 27, lines 62-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Yamane teaches by specifically adding features using wired or wireless public networks such as a portable telephone, PHS taught by Takaoka et al.

6. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Takaoka et al (6477475).

Regarding claim 15 Takaoka et al does not teaches the node device is an ATM communication device for communicating by an asynchronous transfer mode (ATM) transmission system, and the entire network is configured by an ATM network and the Examiner takes official notice of such standard in order for the system to conform to the well know standards for compatibility issues.

Response to Arguments

1. Applicant's arguments with respect to claims 1-15,20-23,26-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

2. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Khawar Iqbal whose telephone number is (571) 272-7909.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Khawar Iqbal

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
5/14/05